



# Revision Guides

# Exponents Rules

## Part - 2



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# Introduction

When we start working with the Exponents... and we need to perform operations with exponents, we need to follow some rules in order to simplify these mathematical expression.

The laws of exponents are more just "tricks" or short cuts that help us work with exponents.

# Power Rule

In previous tutorial, We talked about Rule - 1, Quotient Rule and Rule - 2, Zero Exponent Property Rule.

In this tutorial, Let's explore

Rule - 3

Power Rule

Power of the power property of  
Exponent

The "power rule" tells us that to raise a power to a power, just multiply the exponents.

When an exponential expression is raised to a power, copy the base which is a nonzero real number, then multiply the inner and outer exponents.

Let' see how we do it...

# Example

Let's try to apply this rule -

$$(a^m)^n = a^{mn}$$

Look at this example below -

$$(2^3)^4$$

Can we simplify this?

$$(2^3)^4 = 2^{3 \cdot 4} = 2^{12}$$

Well that was easy  
Isn't it?



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